

# ABSTRACT

5 A method of press-working an inorganic substrate,  
which method uses a vacuum press machine having an air plunger  
type pressurization system and comprises bringing upper and  
lower heat plates which have been heated up to a predetermined  
temperature into contact with a combination set disposed  
between the upper and lower heat plates after or before the  
initiation of pressure reduction of a press atmosphere or under  
10 a reduced pressure and then carrying out a low pressure loading  
of from the initiation of pressurization to 0.05 Mpa over 10  
seconds or longer and a press machine which is suitable for  
the above press-working method and which can set and control  
a low-pressure of 0.02 MPa or lower and comprises an air plunger  
15 that works as an air damper when the upper heat plate descends.

20 The above machine and the method are a machine for  
press-working an inorganic substrate made of a fragile and  
breakable semiconductor substrate or ceramic under heat  
without any special skill and a press method therefor.  
Accordingly, bonding and holding of the semiconductor  
substrate to/on a holding substrate by pressurization and  
heating, laminate-formation of a ceramic substrate, and the  
like, can be carried out with a high degree of reliability.